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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

OPIE, GEORGE L

ART UNIT PAPER NUMBER

2194

DATE MAILED: 11/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/043,364

Applicant(s)

MORRISON ET AL.

Examiner

George L. Opie

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

This Office Action is responsive to the Amendment filed 10 August 2006, in which claims 1, 3-5, 11, 17-22 and 24-34 were amended. Claims 1-34 are pending.

1. Request for copy of Applicant's response on floppy disk:

Please help expedite the prosecution of this application by including, along with your amendment response in paper form, an electronic file copy in WordPerfect, Microsoft Word, or in ASCII text format on a 3½ inch IBM format floppy disk. Please include all pending claims along with your responsive remarks. Only the paper copy will be entered -- your floppy disk file will be considered a duplicate copy. Signatures are not required on the disk copy. The floppy disk copy is not mandatory; however, it will help expedite the processing of your application. Your cooperation is appreciated.

2. Claim Rejections - 35 U.S.C. § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter. Or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 16-34 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. The current focus of the Patent Office in regard to statutory inventions under 35 U.S.C. § 101 for method claims and claims that recite a judicial exception (software) is that the claimed invention recite a practical application. Practical application can be provided by a physical transformation or a useful, concrete and tangible result. No physical transformation is recited and additionally, no useful, concrete and tangible result is found in claims 16-34.

Transformation of data by a machine constitutes statutory subject matter if the claimed invention as a whole accomplishes a practical application. That is, it must produce a "useful, concrete and tangible result." *State Street*, 149 F.3d 1368, 1373, 47 USPQ2d 1596 at 1600-02 (Fed. Cir. 1998). MPEP 2106.

State Street required transformation of data by a machine before it applied the "useful, concrete, and tangible test." However, *State Street* does not hold that a "useful, concrete and tangible result" alone, without a machine, is sufficient for statutory subject matter. *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601.

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Non-statutory subject matter cannot be automatically converted into statutory matter merely by drafting the claims with token references to something that is statutory subject matter.

4. Claim Rejections - 35 U.S.C. § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. Claims 1, 3, 5-8, 10-11, 14-16, 18-28, and 30-33 are rejected under 35 U.S.C. § 102(e) as being anticipated by Kossatchev et al. (U.S. Patent 6,698,012).

As to claim 23:

Kossatchev teaches the invention as claimed including a computer-readable medium having stored thereon a data structure (see the abstract', col. 1, lns 44-57, and col.3, lines 1-13), the data structure comprising:
. a first data field containing data representing an application table (the test suite 22, col.3, lines 14-16), the application table comprising an application table entry (a set of programs and test data; col.3, lines 14-16), and
a second data field containing data representing a parameter table (test case parameter sources, col. 4, lines 11-13), the parameter table comprising a parameter table entry (test case parameters', col. 4, lines 11-13).

As to claim 24:

Kossatchev teaches a third data field containing data representing a global initialize function (col.4, lines 3 1-37), a fourth data field containing data representing a global terminate function (col. 15, lines 45-59), and a fifth data field containing data representing an application function (see the abstract and col. 1, lines 44-57).

As to claim 25:

Kossatchev teaches a sixth data field containing data representing an application test function (testing procedures in parallel mode separately from the consecutive procedures; col. 1, lines 49-57).

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As to claim 26:

Kossatchev teaches a sixth data field containing data representing a number of times to call the application function (col.4, lines 55-63).

As to claim 27:

Kossatchev teaches a seventh data field containing data representing an application post function (col.3, lines 60-63).

As to claim 28:

Kossatchev teaches an eighth data field containing data representing an application post test function (col.4, lines 55-60).

As to claim 30:

Kossatchev teaches a third data field containing data representing a name of a parameter (col.4, lines 26-27),* a fourth data field containing data representing a type of the parameter (col.4, lines 27-30), and a fifth data field containing data representing a value of the parameter (col.4, lines 34-37).

As to claim 31:

Kossatchev teaches a second application table entry (col.3, lines 14-16).

As to claim 32:

Kossatchev teaches a second parameter table entry (col.4, lines 1 1-17).

As to claim 33:

Kossatchev teaches a third data field containing data representing a module initialize function (col.4, lines 31-37 and col.9, lines 37-43),* and a fourth data field containing data representing a module terminate function (col. 15, lines 45-59).

As to claim 16:

Kossatchev teaches the invention as claimed including a computer-readable storage medium having stored thereon a data structure (see the abstract; col. 1, lines 44-57, and col.3, lines 1-13), the data structure comprising a first data field containing data representing a global initialize function (generates the test driver sources . . . fulfill functions to initialize the procedure interface 4, prepare input values, call tested procedures with test case parameters; col.4, lines 31-37 and col.9, lines 37-43)*,

a second data field containing data representing a global terminate function (checks the script driver call conditions and termination correctness. . .controls and manages test sequence execution; col.15, lines 45-5%, and

a third data field containing data representing an application function (parallel procedures, consecutive procedures; see the abstract and col. 1, lines 44-57).

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As to claims 18-21:

Refer to claims 25-28 above for rejection.

As to claim 1:

The rejections of claims 16 and 23 above are incorporated herein in full.

Additionally, Kossatchev further teaches selecting an application table entry and running a sub-application referenced by the selected application table entry with one or more parameters referenced by one or more parameter table entries (selected needed test case parameters. The test case parameters are represented by these constant arrays and propams . . . the test drivers execute tests on the SUT 3 using the test case parameters; col.4, lines 1-22).

As to claim 3:

Refer to claim 33 above for rejection.

As to claim 5:

Kossatchev teaches selecting each application table entry in the application table (col.4, lines 11-22), and processing each selected application table entry (col.4, lines 23-30).

As to claim 6:

Kossatchev teaches collecting data specifying that a sub-application should not be run; and wherein selecting comprises selecting an application table entry other than one that references the specified sub-application (col.4, lines 1-37).

As to claim 7:

Kossatchev teaches collecting data specifying a value of a parameter; collecting data specifying a sub-application; and wherein processing further comprises: if the application table entry being processed references the specified sub-application, then using the specified value of the parameter (see fig.10 and the associated text).

As to claim 8:

Kossatchev teaches collecting data specifying a type of error; collecting data specifying a sub-application; collecting data specifying an error response action; and wherein processing further comprises: if the application table entry being processed references the specified sub-application, and if the specified sub-application generates an error of the specified type, then performing the specified error response action (col.4, lines 55-63, col.7, lines 37-49, and col.8, lines 23-29).

As to claim 10:

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"a computer-readable storage medium having instructions" would have been inherent in the system of Kossatchev.

As to claim 11:

The rejections of claims 16 and 23 above are incorporated herein in full. Additionally, Kossatchev further teaches collecting data specifying one or more sub-applications composing the application (the test suite 22 is set of programs and test data; col.3, lines 14-16),. collecting data specifying one or more parameters to the one or more sub- applications (generating test case parameters .. generate constant arrays and propams that generate and select needed test case parameters; col.4, lines 11-17),. and creating a reference to a type of the parameter (a test case is defined by a procedure name and its parameters; col.4, lines 25-30).

As to claim 14:

Kossatchev teaches adding to the framework module a reference to a module initialize function (col.4, lines 31-37 and col.9, lines 37-43),. and adding to the framework module a reference to a module terminate function (col.15 lns 45-50).

As to claim 15:

"a computer-readable storage medium having instructions" would have been inherent in the system of Kossatchev.

6. Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2, 4, 9, 12-13, 17, 29 and 34 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kossatchev et al. (U.S. Patent 6,698,012) in view of Grey et al. (U.S. Patent 6,754,850).

As to claims 2, 12, and 17:

Grey teaches creating a reference to at least one of the global initialize and global terminate functions comprises creating a NULL reference (col.23, lines 23-33).

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It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to combine the teachings of Grey with Kossatchev because Grey's teachings would have provided the capability for efficiently testing behavior of procedures in Kossatchev's system.

As to claims 4, 13, 22 and 29:

Kossatchev does not specifically teach the use of threads.

Grey teaches the use of threads (see the abstract; col.3, lines 46-63, and col.7, lines 29-61).

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to combine the teachings of Grey with Kossatchev because Grey's teachings would have provided the enhanced capability for performing desired tests of a unit under test by testing a group of units simultaneously.

As to claim 9:

Grey teaches the error response action is in the set: break into a debugger, exit without clean up; terminate all threads; exit immediately (col.17, lines 25-47, col.20, lines 45-67).

As to claim 34:

Kossatchev teaches a third data field containing data representing a module check function (col.7, lines 44-48). Grey teaches a fourth data field containing data representing a module clean up function (col.20, lines 54-67).

8. The prior art made of record, listed on PTO 892 provided to Applicant is considered to have relevancy to the claimed invention. Applicant should review each identified reference carefully before responding to this office action to properly advance the case in light of the prior art.

9. Response to Applicant's Arguments:

Applicant argues (claim 23) that Kossatchev does not teach the "data representing an application table". Contrary to Applicant's contention, the Kossatchev reference does teach the recited field of application data as claimed. The rejection of claim 23 contains a detailed mapping of each element in the claim with its equivalent component taught in the prior art of Kossatchev. The scope of the claimed "application table" and "parameter table" clearly transcend the more narrow scope that Applicant attempts to impute through argument. Claimed subject matter, not the specification is the measure of the invention. Limitations in the specification cannot be read into the claims for the purpose of avoiding the prior art, *In re Self*, 213 USPQ 1,5 (CCPA 1982); *In re Priest*, 199

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USPQ 11, 15 (CCPA 1978). The aforementioned claim elements are clearly subject to a broad interpretation, as detailed in the rejections maintained above.

During patent examination, the pending claims must be "given their broadest reasonable interpretation consistent with the specification." *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000). Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969)

In considering the application table and parameter data recitations, it is noted that Applicant uses terminology that has broad meaning in the art, and thus requires a broad interpretation of the claims in determining patentability of the disclosed invention. Consequently, the structured info collection associated with an application, in the manner recited in the pending claims does not constitute a patentable distinction over the prior art.

Applicant should set forth claims in language that clearly, distinctly, unambiguously and uniquely define the invention.

Limitations appearing in the specification but not recited in the claim are not read into the claim. *E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1369, 67 USPQ2d 1947, 1950 (Fed. Cir., 2003). claims must be interpreted "in view of the specification" without importing limitations from the specification into the claims unnecessarily. (see *Prater supra* at 1404-05, 550-551).

See also *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (1989) "During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow.... The reason is simply that during patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed.... An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process."

Applicant's arguments filed 10 August 2006, have been fully considered but are deemed to be unpersuasive. For the reasons detailed above, the rejections are maintained as set forth supra.

10. THIS ACTION IS MADE FINAL.

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A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

11. Contact Information:

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.

Status information for published applications may be obtained from either Private-PAIR or Public-PAIR.

Status information for unpublished applications is available through Private-PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions regarding access to the PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

All responses sent by U.S. Mail should be mailed to:

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450


Hand carried responses should be delivered to the *Customer Service Window* (Randolph Building, 401 Dulany Street, Alexandria, Virginia 22314) and, if submitting an electronic copy on floppy or CD, to expedite its processing, please notify the below identified examiner prior to delivery, so that the Applicant can "handoff" the electronic copy directly to the examiner.

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The Official fax number (571) 273-8300 should be used for any and all facsimile submissions to the Office.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at **(571) 272-2100**.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Opie at (571) 272-3766 or via e-mail at George.Opie@uspto.gov. Internet e-mail should not be used where sensitive data will be exchanged or where there exists a possibility that sensitive data could be identified unless there is an express waiver of the confidentiality requirements under 35 U.S.C. 122 by the Applicant. Sensitive data includes confidential information related to patent applications.

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